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SPRINGFIELD

August 7, 1968

15-286
TECHNICAL SECRETARY
CLARENCE W. KLASSEN
CHIEF SANITARY ENGINEER
DEPARTMENT OF PUBLIC HEALTH

ADDRESS LETTERS TO:
STATE SANITARY WATER BOARD
SPRINGFIELD, ILLINOIS
62706

MONSANTO - Solids Waste Disposal
(Sauget Disposal Area)

Mr. John R. McClain
Plant Manager
Monsanto Company
Sauget, Illinois

Dear Mr. McClain:

We received your letter of August 1, 1968 concerning the deposition of waste in your industrial disposal site at Sauget.

Our request as to the types and amounts of materials deposited in this area resulted from the need to determine possible pollutional discharges. While it is reasonably easy to determine the phenol content and COD of any losses, it is obvious that this does not necessarily indicate retention or loss of other contaminants. We are both well aware that a large quantity of organic wastes are disposed of in this area. Many of these wastes do not lend themselves to easy analysis nor are we fully cognizant of the numerous reaction products which may result from intimate contact of the various wastes. It is our hope that by having some idea of the amounts and composition of the wastes, we may arrive at a minimal number of analyses which may be performed in order to monitor any possible loss of contaminants from this area. Should you find it objectionable to divulge this information it may be possible to monitor this site by means of some persistent tracer such as dye or chlorides, etc.

The other alternative to continuous monitoring and surveillance of this site is the possibility of incineration of all wastes to a final stable state. Should monitoring prove impractical or should it demonstrate losses of pollutional material, the discontinued use of this site with the possible alternative of total destruction by incineration or some other means may be necessitated.

Very truly yours,

CW Klassen
C. W. Klassen
Technical Secretary

ECB:cj

cc: -General Sanitation
-Region VI

602297

Monsanto

C O M P A N Y

Sauget, Illinois 62201
(618) 271-5835

August 16, 1968

Mr. C. W. Klassen
Technical Secretary
State of Illinois Sanitary Water Board
Springfield, Illinois 62706

Dear Mr. Klassen:

In reply to your letter of August 7, 1968, I have the following information which you need to set up a monitoring program for our industrial waste disposal site.

In general we deposit at this site those wastes which would add to the sludge load at the waste treatment plant or would dissolve in our wastewater and add to the phenol content, C.O.D. or color of the final effluent. Chemically, they fall into 6 main groups:

1. Phenols
2. Aromatic Nitro Compounds
3. Aromatic Amines and Nitro Amines (highly colored)
4. Chlorinated aromatic hydrocarbons
5. Aromatic and aliphatic Carboxylic acids
6. Condensation or reaction products of the above

A more detailed list of sources and quantities follows:

1. Still Residues - tars, condensation and decomposition products of doubtful composition but with some of the primary product remaining.

From the Distillation of:

Approx. Annual Amount

a. Phenol	1,020 Cu. yds.
b. Chlorophenol	720 Cu. yds.
c. Nitro-Aniline and similar compounds	1,700 Cu. yds.
d. Chlorobenzol (Tri-Tetrachlor)	130 Cu. yds.
e. Chloro aniline	1,100 Cu. yds.
f. Other aniline derivatives	200 Cu. yds.
g. Nitro benzene derivatives	100 Cu. yds.
h. Aromatic carboxylic acids (Maleic, Phthalic, etc.)	1,500 Cu. yds.
i. Chlorophenol Ether	350 Cu. yds.

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2. By-Products -

a. Mixed isomers of nitrochlorobenzene	1,700 Cu. yds.
" " " Dichlorophenol	3,000 Cu. yds.
b. Waste Maleic Anhydride	730 Cu. yds.
c. Waste Chlorobenzenes and Nitro- chlorobenzenes	120 Cu. yds.

3. Contaminated Water and Acids -

a. Water with varying amounts of phenols (0-15%)	7,200 Cu. yds.
b. Waste Sulfuric acid with chlorophenol present	1,500 Cu. yds.
c. Caustic Soda Solution with chlorophenol present	5,300 Cu. yds.

4. Waste Solvents -

a. Waste Methanol contaminated with Mercaptans	600 Cu. yds.
b. Waste Isopropanol - Water and chlorinated hydrocarbon	5,500 Cu. yds.
c. Research Waste: Miscellaneous Solvents and Materials	1,019 Cu. yds.
d. Oily Materials from Oil Additive Production	101 Cu. yds.

5. Filter Sludge -

a. Attapulugus Earth -Keisulguhr from Alkyl Benzene filtration	600 Cu. yds.
b. Lime Mud from nitro-aniline production..	1,000 Cu. yds.

6. Unwanted Samples and Waste resulting
from taking samples -

a. Chlorophenols	72 Cu. yds.
b. Laboratory Samples (Everything)	208 Cu. yds.

Mr. C. W. Klassen

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August 16, 1968

7. Miscellaneous Wastes -

These consist of spoiled material, floor sweepings, sludge from cleaning equipment and storage tanks etc which would cause problems if sewered. They are mostly reaction products of the above materials eg Esters of phenols or aliphatic alcohols with carboxylic acids such as phthallic, Maleic, or Benzoic acid, Anilides, Sulphonated phenols or other aromatics.

The relative quantities of these materials will necessarily vary according to sales of particular products and there will be additions to and deletions from this list. However, the general chemical classification will remain much the same.

Please let me know if you need any additional information.

Very truly yours,

J. R. McClain
Plant Manager

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